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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,688	07/23/2001	David Anthony Biro	C-463	8411

7590 04/01/2003
Sidney Persley
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EXAMINER

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,688

Applicant(s)

BIRO ET AL.

Examiner

Nathan M. Nutter

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 20-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, claims 1-19, in Paper No. 9 of 19 March 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Newly submitted claims 30-40 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 30-40 are drawn to a method for controlling the cure rate of a curable composition containing a specific (see claim 30) maleimide derivative. This method of use does not require the compositions of the elected invention, claims 1-19 of Group I.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 30-40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The rejection of the claims under 35 USC 112, second paragraph, is hereby expressly withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recite a "water compatible compound", which in and of itself, is so broad as to be incomprehensible. The term is not specific as to any solubility factor, whether the "compatibility" is in regard to being unaffected by the presence of water, whether the compound retains its original structure or content in the presence of water or any other factors which would enable one having an ordinary skill in the art as to what may be embraced by this recitation for use in the invention. The term is not art-recognized for any particular class or grouping of compounds, nor is it a proper Markush group to which members are known or easily ascribed. The determination of what may be usable in this capacity would require the undue burden of experimentation on the part of the artisan. Even with the recitations in the dependent claims, the skilled artisan would still be required to perform undue experimentation to determine what is being claimed by these recitations. Likewise, the recitation in claim 3 of "a compound copolymerizable with the said maleimide derivative" renders the claim, and any dependent thereon, as non-enabling since the identities of the "maleimide

Art Unit: 1711

derivatives" would necessarily be obtained first, with subsequent experimentation to determine exactly what compounds may then be "copolymerizable therewith".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Sakurai et al, newly cited.

The reference to Sakurai et al teaches the manufacture of an irradiation curable coating composition which may comprise water, a bis-maleimide compound and water compatible compounds, identical to those as herein claimed. Note column 3 (line 41) to column 8 (line 14) for the maleimide compounds, which embrace those of instant claims 6-11 and 19. Note column 4 (lines 13-16) for the specific inclusion of other compounds copolymerizable with the maleimide, as recited in instant claims 3 and 16. Note column 13 (line 13) to column 14 (line 30) for the "water compatible compounds", having the

identical resins as recited in instant claims 1, 2, 4, 5, 12-15, 17 and 18. Finally, note the claims of the patent.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McGinniss, cited by applicants.

Note the claims and the Examples which teach the use of a maleimide compound, water and a water-dispersed polymer, which as shown by the examples may include acrylate resins, as herein claimed.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Roth et al, cited by applicants.

The patent to Roth et al teaches the inclusion of water with a maleimide compound and a (meth)acrylate, (meth)acrylamide or a vinyl ether copolymer, as herein claimed. Note the Abstract, column 1 (line 58) to column 2 (line 31) and column 4 (49-68).

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wilson, Jr. et al, cited by applicants.

The reference to Wilson, Jr. et al teaches the inclusion of water, a maleimide compound and a water compatible compound. Note the Abstract, column 4 (lines 17 et seq.), column 7 (lines 17 et seq.) and the many examples.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kishino et al, newly cited.

The reference to Kishino et al teaches the inclusion of water, a maleimide compound and acrylonitrile. Note the Abstract and column 7 (line 46) to column 8 (line 37).

Response to Arguments

With regards to the description referred to by counsel concerning the rejection of claims 1-19 under 35 USC 112, first paragraph, it is noted that the passage in the specification to which counsel refers concerning the "water compatible compound" broadly defines the term and clearly adds nothing to the voluminous knowledge of this concept. However, the term, as disclosed, even at page 42 of the specification fluctuates between being simply any type of compound, including organic or inorganic, to being a resinous compound. The determination of what may be suitable in the composition would clearly require the "undue burden of experimentation" to ascertain. Counsel urges at pages 9 and 10 of the response that any such compounds may be used that satisfy the requirement of "water compatible", regardless of suitability otherwise, but fails to teach or even suggest any guidance to determine what the term may comprise in order to show support for what is being claimed. Further, with regard to the "compound copolymerizable with the said maleimide derivative", indeed, the "undue burden of experimentation" to ascertain clearly what would be embraced would be

present. Any good chemist knows that how a compound is derivatized will determine what other compounds may be reacted therewith. Counsel's assertions are clearly unfounded.

With regard to the rejection of claims 1-19 under 35 USC 102(a) as being clearly anticipated by the teachings of Sakurai et al, it is pointed out that the examiner does not opine anything concerning the inclusion of water in the composition disclosed by Sakurai et al. first of all, the reference cites the term "water" a total of *seven times*, not six as opined by counsel, and recites the term "aqueous", asserting the inclusion of "water", a total of *three times*. The patent teaches the inclusion of water in the composition produced at column 26 under "Manufacturing Example 3". Counsel opines that the reference teaches the use of water only in the production of the *bis-maleimide* compound, however, claim 1 recites only a maleimide, water and a water compatible compound. The recitations in the patent meet those criteria at the passages recited by counsel since there is nothing in the patent to teach the isolation of the maleimide compound from the water containing azeotropic mixture used as a solvent.

With regard to the rejection of claims 1-3 under 35 USC 102(b) as being clearly anticipated by McGinniss et al, it is pointed out that the instant claims do not exclude the use of any other type of curing procedure, besides the fact that neither of claims 1-3 is actually "cured". The claims recite "curable". Counsel's argument is not clear in this regard.

With regard to the rejection of claims 1-3 under 35 U.S.C. 102(b) as being clearly anticipated by Roth et al, again, it is pointed out to counsel that the instant claims 1-3 do

not recite a cured composition, but merely a mixture of constituents. Examples 22 and 27 are excellent examples of the subject matter. They include a water compatible compound, a maleimide derivative and water. Nothing else is required by claim 1. Claims 2 and 3 are likewise anticipated as pointed out above.

With regard to the reference to Wilson, Jr. et al, again, counsel is directed to the claim language which does not require a cure. The composition of the Wilson, Jr. et al patent, simply by virtue of being the same as that herein recited, would be "actinic" curable.

The compositions produced by Kishino et al are identical to those recited and claimed herein. The instant claim 1 only suggests that the compositions may be actinic curable, but is not drawn to a cured composition.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

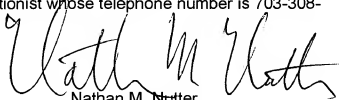
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1711

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 703-308-2443. The examiner can normally be reached on Monday-Friday 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read 'Nathan M. Nutter', is written over the printed name and title.

Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn
March 30, 2003